

SWBAT: build series and parallel circuits

Jan 4-7:20 AM

Welcome!!!

H. Leslie Grebe

SECA Physics
Wednesday 4 March 2015

* Pick up:

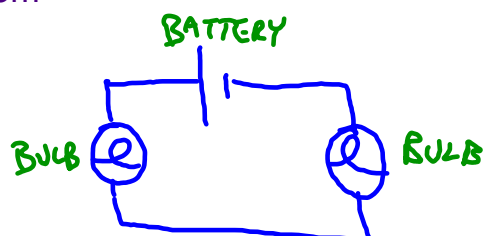
- packet

NO SLIP OF PAPER: daily 3 will be from
the packet

Opening Questions:

Is this circuit **SERIES** or PARALLEL?

ONE
PATH



Centering

Sep 7-7:04 AM



Mystery Resistor - extra credit

- You may work alone or with at most one other person of your choosing.
- Get a "Mystery Resistor" labeled with a letter from Leslie
- Use the same equipment that our teams used in class. Take measurements that will allow you to calculate the resistance (in Ohms) of your resistor.
- You may work when there is spare time in class or arrange other time with Leslie.

Due by 3:00 Friday 3/27

Jan 19-7:12 AM

Series and Parallel Lab:

Practice

Done early?

Extra Credit puzzles!

Catchy Physics Phrases:

Series circuits have one path.



Parallel circuits have more than one path.



Mar 21-7:21 AM

A visit to "Circuitopia"

People:

Moving / speed of people:

"Gotta catch my flight!":

Passport checker:

Speed?

Plane → passport checker → visa checker → plane

Speed?


Break!

2 Passport checkers:

Speed?

Mar 5-8:35 AM

Concept sheet: 6 rows total

Concept	Meaning	Symbol	Units	Analogy
CHARGE	PROPERTY OF PROTONS & ELECTRONS THAT CAUSES ATTRACTION & REPULSION	q	COULOMBS C	
VOLTAGE = ELECTRIC POTENTIAL	POTENTIAL BASED ON POSITION IN AN ELECTRIC FIELD "PUSH"	V	VOLTS V $1V = \frac{1J}{1C}$	PERSON PEDALING ⇒ THE PUSH
CURRENT	THE FLOW OF ELECTRIC CHARGE $= \frac{CHARGE}{TIME}$	I $I = \frac{q}{t}$	AMPERE A $1A = \frac{1C}{s}$	- WHEEL CHAINS MOVING
RESISTANCE	OPPOSITION OF CURRENT "AGAINST THE FLOW"	R	OHMS Ω	BRAKES
OHM'S LAW	VOLTAGE = CURRENT TIMES RESISTANCE	$V = I \cdot R$	$1V = 1A \cdot 1\Omega$	HOW HARD DO YOU PEDAL? BRAKE AFFECTS SPEED

$$\frac{q}{I \cdot t}$$

$$\frac{V}{I \cdot R}$$

Feb 23-7:34 AM

Daily 3 Questions

CP No homework

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

Your can't get your points if you don't have your NAME!!!

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

Daily 3 from packet:

- 1) What do the blue dots represent?
Electrons or Current
- 2) What happened to the brightness of the bulb when a second bulb was added in series?
It got much dimmer
- 3) In the series circuit, what happened when the switch between the bulbs was open? Closed?
Neither on when open, Both on when closed.

Feb 18-6:59 AM